Young Supernova Experiment External Scientist Policy

Introduction

The Young Supernova Experiment (YSE) collaboration recognizes that some YSE projects may benefit from the participation of scientists who are not members of the YSE collaboration. These scientists are not able to apply for membership, but are willing to devote resources to these projects. They may be able to provide expertise, data, telescope resources, simulations, software support, analysis, or other resources. This document outlines the circumstances and process for these scientists to participate in YSE as an External Scientists (ESs).

We envisage that an ES brings resources or expertise that are not readily available within the YSE collaboration itself. The guiding principle in these matters is to allow YSE participants the first opportunity to carry out science involving YSE data and to bring in outside collaborators only when it is critical to the scientific impact.

The policy and procedures specified here are relevant for ESs participating in specific projects. Individuals can submit multiple applications to expand the scope of their ES status with time. This policy does not cover full membership in the collaboration (see membership documents) or joint work between collaborations (which require memoranda of understanding). This policy does not cover sharing small amounts of YSE data that are not essential to a specific analysis.

Mutual Agreements

External Scientist status is granted by vote of the YSE Executive Committee after reviewing a submitted application. All ESs must abide by collaboration rules including data sharing, proposal writing, the publication policy, and civility.

ESs are expected to perform the work outlined in the application. They are granted access to YSE data, including through competitive proposals for follow-up observations, related to that work. They are granted restricted access to collaboration tools such as YSE-PZ and Slack, limited to the work detailed in the ES proposal. They are allowed access to pertinent teleconferences and should be encouraged to collaborate broadly within the scope of the proposed project. ESs are expected to provide all data, simulations, etc. outlined in the application to the collaboration. All analysis code will also be shared with the collaboration. If telescope proposals are submitted as part of the ES work, all data from that program will be shared with the collaboration. Internal communication, including Slack messages, emails, presentations, and teleconferences, should not be shared (even as a verbal description) with anyone outside the collaboration without prior approval.

Project Definition

Each scientist has different skills, background, and resources. As such, each individual application for ES status will be examined separately. Proposals must specify the work to be achieved and must be limited in scope. Some projects will be broad and can be defined before any data are taken, while other projects will not be clear until after critical observations are made.

Observational projects can be started because a scientist is interested in using YSE data in a way that is not currently being done by the collaboration. Often a scientist has unique resources, including existing data, that can be combined with YSE data to enable a new project. Potential ESs do not have to have all potential resources in hand at the time of application, but the uniqueness of resources or the ability to obtain those resources will be considered.

Theory projects are often started as the result of having a new observational discovery. Some theory projects might be in support of an observation, where models are produced to explain the observations. Other theory projects may be initiated because observations reveal a new aspect to a problem. As a result, it is often difficult to have narrowly defined theory projects before observations are made. Similarly, the duration of the project will likely be harder to determine at the time of the proposal. We are aware of this and will adjust expectations for proposals accordingly. Theory proposals should still outline what the proposer intends to provide to the collaboration. This could, for instance, be simulations, software tools, or analytic models.

If one already has ES status, the Executive Committee can adjust the project duration or scope without a new application. Each ongoing ES agreement will be reviewed periodically to ensure projects are not abandoned and progress is being made. If the ES wants to start a new, unrelated project, a separate application is required; progress on any existing agreement will be a criterion for starting new projects.

Application and Approval Process

The applicant will prepare a proposal that is expected to be no more than 2 pages in length. An applicant may not have detailed knowledge of the survey, data products, current resources, etc., and so working with a current member on an application is encouraged but all applications will be considered. The proposal must include the following:
- The proposed role of the ES in the collaboration.
- The nominal duration of the project.
- The motivation for the proposal, possibly including unique expertise, data, telescope resources, simulations, software support, analysis, or other resources. The motivation should outline why the ES can uniquely perform this work or why the work would be significantly enhanced by the collaboration.
- The YSE data is required for this work.

- Statements agreeing to all collaboration policies, that the YSE data will only be used for the work described in the proposal, and that the data will not be shared outside the collaboration without approval.

The application is then circulated by the Executive Committee to the collaboration for comments. The comment period will last 1 week. The primary considerations are if the ES brings essential or unique expertise/data to the project and the current goals of existing YSE members and ESs, and members will be asked to comment on this aspect of the proposal.

If the collaboration identifies a viable (capable and willing) internal alternative, the Executive Committee will provide feedback to the applicant and the application will be returned with an opportunity to revise the proposal in response to the feedback.

If there is no viable internal alternative identified by the end of the comment period, the proposal will be reviewed in detail by the Executive Committee, who will examine the balance of the proposal. They can suggest changes in scope or resources to the applicant. If the applicant and Executive Committee agree to terms, the proposal will be approved.

Full approval must occur before the ES can participate in the collaboration.

All papers from projects with ESs are, by definition, started with proprietary data and should go through the standard publication process of YSE collaboration, even if the data in the meantime have become public.